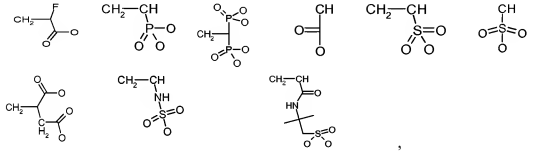
CLAIMS:

1. (currently amended) A method of removing sodium from an animal subject comprising administering to an animal subject in need thereof an effective amount of a non-absorbed sodium-binding composition comprising a sodium-binding polymer, said polymer comprising a cation exchange moiety selected from



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said polymer having an *in vivo* sodium binding capacity of 4 mmol or more per gram of said polymer in a human and wherein said animal subject is suffering from hypertension, chronic heart failure, end stage renal disease, liver cirrhosis, chronic renal insufficiency, fluid overload, or sodium overload.

2. (canceled)

3. (withdrawn) The method of claim 1 wherein said sodium-binding composition exhibits decreased permeability to said bound sodium in said lower gastrointestinal tract relative to the permeability exhibited by the sodium-binding composition to said bound sodium in the upper gastrointestinal tract.

4. (canceled)

5. (withdrawn) The method of claim 1 wherein said sodium-binding composition swells in an isotonic fluid environment.

6. (withdrawn) The method of claim 1 wherein said sodium binding by said sodium-binding composition is dependent on a pH of an environment surrounding said polymeric composition.

7. (withdrawn) The method of claim 3 wherein said sodium binding by said sodium-binding composition is dependent on a concentration of bile acids and/or fatty acids in an environment surrounding said polymeric composition.

8. (withdrawn) The method of claim 3 wherein said sodium binding by said sodium-binding composition is dependent on an activity of enteric enzymes in an environment surrounding said polymeric composition.

9. (withdrawn) The method of claim 1 wherein said sodium-binding composition comprises sulfonate or phosphonic polymers.

10. (withdrawn) The method of claim 1 wherein said sodium-binding composition does not release Cl^- or OH^-.

11. (withdrawn) The method of claim 1 wherein said sodium-binding composition does not release K^+ or Ca^{2+}.

12. (canceled)

13. (currently amended) The method of claim **1 [[12]]** wherein said **sodium-binding polymer** ~~acid resin~~ comprises repeat units charged with H^+ or NH_4^+ ions.

14. (currently amended) The method of claim 1 ~~or 12~~ wherein said effective amount of sodium-binding composition administered is not greater than about 15 grams per day.

15. (previously presented) The method of claims 1 ~~or 12~~ wherein the effective amount of said sodium-binding composition removes about 50 mmol of sodium per day.

16. (currently amended) The method of claim 1 ~~or 12~~ wherein said sodium-binding composition comprises at least one of polyvinylsulfonate polymer, polyvinylsulfamate polymer, polyvinylsulfamate/vinylsulfate copolymer, polyvinylphosphoramidic polymer, N-(bis-phosphonic-ethyl) polyvinylamine polymer, poly-α-fluoroacrylic acid polymer, vinylphosphonate/acrylic acid copolymer, vinylphosphonate/α-fluoroacrylic acid copolymer, polyvinylsulfate polymer, crosslinked polyvinylsulfamate polymer, or poly α-acrylic acid polymer.

17 - 35. (canceled)

36. (previously presented) The method of claim 1 wherein extra cellular water is removed from said animal subject.

37. (previously presented) The method of claim 1 wherein a beneficial effect is observed on fluid management, blood pressure control, and/or interdialytic weight gain.

38. (currently amended) The method of claim 1 ~~or 12~~ wherein said animal subject is suffering from a disease characterized by a presence of abnormal quantities of sodium and/or water in the body of said animal subject.

39. (currently amended) The method of claim 1 ~~or 12~~ wherein said animal subject is resistant to diuretic treatment and is suffering from hypertension, chronic heart failure, end stage renal disease, liver cirrhosis, chronic renal insufficiency, fluid overload, or a combination thereof.

40. (currently amended) The method of claim 1 ~~or 12~~ wherein sodium is removed from the animal subject over an extended period of time.

41. (currently amended) The method of claim 1 ~~or 12~~ wherein treatment of said animal subject prevents formation of edema after a cardiac event.

42. (currently amended) The method of claim 1 ~~or 12~~ wherein said animal subject is suffering from volume/salt sensitive diastolic heart failure.

43. (currently amended) The method of claim 1 ~~or 12~~ wherein said composition is co-administered with a diuretic, an ACE inhibitor, an α- blocker, a β- blocker, an angiotensin II receptor blocker, or a combination thereof.

44. (currently amended) The method of claim 1 ~~or 12~~ wherein said composition is co-administered with a laxative.

45. (withdrawn) The method of claim 1 wherein said sodium-binding polymer has an *in vitro* sodium binding capacity of equal to or more than 6 mmol per gram of polymer at a pH of about 7.5.

46. (withdrawn) The method of claim 1 wherein the *in vivo* sodium binding capacity is 5 mmol or more per gram of said polymer.

47. (withdrawn) The method of claim 1 wherein the *in vivo* sodium binding capacity is 6 mmol or more per gram of said polymer.

48. (withdrawn) The method of claim 1 wherein the *in vivo* sodium binding capacity is 8 mmol or more per gram of said polymer.

49. (withdrawn) The method of claim 1 wherein the sodium binding capacity is calculated by measuring the amount of sodium in the feces after administration of the sodium-binding polymer to a human patient.

50. (withdrawn) The method of claim 47 wherein the sodium binding capacity is calculated by measuring the amount of sodium in the feces after administration of the sodium-binding polymer to a human patient.

51. (withdrawn) The method of claim 1 wherein said sodium binding polymer comprises a crosslinked polymer.

52 - 59. (canceled)

60. (currently amended) The method of claim 1 ~~or 12~~ wherein said animal subject is suffering from end stage renal disease.

61. (currently amended) The method of claim 1 ~~or 12~~ wherein said animal subject is suffering from chronic renal insufficiency.